ERROR CORRECTION USING REDUNDANT PACKET STREAMS IN WIRELESS COMMUNICATIONS SYSTEMS

ABSTRACT OF THE DISCLOSURE

A communications system includes a mobile unit that transmits redundant content to a plurality of destinations. A copy of the content that is transmitted to each destination is encoded using a code that is related to the codes used to encode copies of the content transmitted to the other destinations. The system further includes a number of base transceiver stations. Each base transceiver station receives a copy of the coded content from the mobile unit, generates a packet including the coded content, and communicates the packet. Furthermore, the system includes a decoder that receives a number of packets that each include a copy of the coded content and that are each generated at a different base transceiver station. The decoder decodes the content in the packets by concatenating the related codes used to encode each copy of the content and generates one or more redundant packets including the decoded content.